

AMENDMENT

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of generating a natural language understanding (NLU) model for use in a spoken dialog service, the method comprising:

(a) using sample utterances, creating at least one hand crafted rule for each call-type defined in a labeling guide, wherein each call-type comprises a call category with at least one defined attribute;

(b) generating and testing a first NLU model using the at least one hand crafted rule and sample utterances;

(c) building a second NLU model using the sample utterances as new training data and using the at least one hand crafted rule;

(d) testing the performance of the second NLU model using a first batch of labeled data;

(e) building a series of NLU models by adding a previous batch of labeled data to training data and using a new batch of labeling data as test data to generate the series of NLU models with training data that increases constantly;

(f) if not all the labeling data is received, repeat step (e) until all labeling data is received; and

(g) after all the training data is received, at least once, building a third NLU model using all the labeling data, wherein the third NLU model is used in generating the spoken dialog service.

2. (Currently Amended) The method of claim 1, further comprising:

identifying at least one obvious utterance with a known classification;
applying the at least one obvious utterance to the NLU model; and
checking whether the at least one obvious utterance was correctly classified by the NLU
model.

3. (Original) The method of claim 1, further comprising:

(h) performing an improvement performance step on the third NLU model;
(i) adding the test data to the training data and building a fourth NLU model; and
(j) augmenting the fourth NLU model using utterances obtained from a customer acceptance test.

4. (Not Entered)

5. (Currently Amended) The method of claim ~~[[4]]~~ 3, further comprising ignoring the utterances that are longer than a specific threshold.

6. (Currently Amended) The method of claim 5, wherein the threshold is ~~forty~~ 50 words.

7. (Currently Amended) The method of claim 1, wherein if the sample utterances are human-human utterances, the method further comprises not labeling utterances longer ~~then~~ than a threshold amount.

8. (Original) The method of claim 7, wherein the threshold is 80 words.

9. (Original) The method of claim 1, wherein some examples in the labeling guide are ignored.

10. (Currently Amended) The method of claim 1, wherein the step of building a series of NLU models by adding a previous batch of labeled data to training data and using a new batch of labeling data as test data to generate the series of NLU models with training data[[:]] .

11. (Currently Amended) A method of generating a natural language understanding (NLU) model for use in a spoken dialog service, the method comprising:

- (a) building a first NLU model using sample[[s]] utterances from a labeling guide, hand crafted rules and labeled utterances of available human/human dialogs or human/machine dialogs, if available;

- (b) testing the performance of the first NLU model using sample utterances in the labeling guide; and

- (c) building a series of NLU models and evaluating the performance of the series of NLU models as labeled data becomes available by:

- (i) adding a previous batch of labeled data to training data; and

- (ii) using a new batch of labeling data as test data to generate the series of NLU models with training data that increases constantly.

12. (Original) The method of claim 11, wherein the step of building a series of NLU models further comprises mixing all the data and dividing the mixed data into training data and test data.

13. (Original) The method of claim 11, wherein the step of building a series of NLU models further comprises keeping a fixed text set and using all other data for training.

14. (Original) The method of claim 11, wherein the step of building a series of NLU models further comprises mixing all the data and dividing it into training and text data.

15. (Original) The method of claim 11, wherein one batch containing all the data is received after completion of all the data labeling.

16. (Currently Amended) A natural language understanding (NLU) model for use in a spoken dialog system, the NLU model generated according to a process comprising:

(a) building a first NLU model using sample[[s]] utterances from a labeling guide, hand crafted rules and labeled utterances of available human/human dialogs or human/machine dialogs, if available;

(b) testing the performance of the first NLU model using sample utterances in the labeling guide; and

(c) building a series of NLU models and evaluating the performance of the series of NLU models as labeled data becomes available by:

(i) adding a previous batch of labeled data to training data; and

(ii) using a new batch of labeling data as test data to generate the series of NLU models with training data that increases constantly.

17. (Original) The NLU model of claim 16, wherein the NLU model is generated by a method further comprising:

augmenting the series of NLU models using utterances obtained from a customer acceptance test.

18. (Original) The NLU model of claim 17, wherein the NLU model is generated by a method further comprising ignoring the utterances that are longer than a specific threshold.

19. (Original) The NLU model of claim 17, wherein if the sample utterances are human-human utterances, the method further comprises not labeling utterances longer than a threshold amount.